

Midterm Exam Report

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1 Summary of the two methods

Both hedcuter method and voronoi method repeat two steps : constructing weighted voronoi diagram and moving sites to new centroids.

1.1 hedcuter method

Before constructing weighted voronoi diagram, the method samples the entire image pixel space. Using uniform To construct weighted voronoi diagram, the method adopts centroid voronoi tessellation.

1.2 voronoi method

2 Improvement of hedcuter method

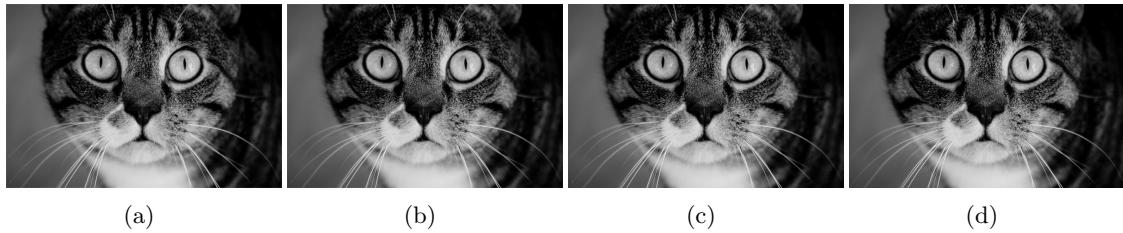


Figure 1: A part of given image and sample points.



Figure 2: A part of given image and sample points.



Figure 3: A part of given image and sample points.



Figure 4: A part of given image and sample points.

References

- [1] Atsuyuki Okabe, Barry Boots, and Kokichi Sugihara. *Spatial Tessellations: Concepts and Applications of Voronoi Diagrams*. John Wiley & Sons, Inc., New York, NY, USA, 1992.
- [2] Andrian Secord. Weighted voronoi stippling. In *2nd International Symposium on Non-Photorealistic Animation and Rendering (NPAR'02)*, pages 37–43, Annecy, France, June 3-5 2002.